

What is claimed is:

1. A timing control unit for controlling a timing for performing a desired operation directly or indirectly of a belt-like member at least at two operating positions including a first operating position and a second operating position separated in a circumferential direction of the belt-like member driven by a drive roll, a distance between the first operating position and the second operating position being set to a multiple of a perimeter of the drive roll, the timing control unit comprising:

a clock generation part for generating a clock signal having a constant period in accordance with a rotation of the drive roll; and

a count part for counting the clock signal generated by the clock generation part, wherein

the count part counts the clock signal generated by the clock generation part for a number corresponding to the multiple of the perimeter of the drive roll, thereby an operation timing at the second operating position is synchronized with an operation timing at the first operating position.

2. A timing control unit according to claim 1, wherein the count part starts to count the clock signal generated by the clock generation part when an operation at the first operating position starts, and an operation at the second operating position starts

when the count part counts the clock signal for the number corresponding to the multiple of the perimeter of the drive roll.

3. A timing control unit according to claim 1, further comprising:

a base clock generation part for generating a base clock signal at a period shorter than the clock generation part; and

a base clock count part for counting a number of the base clocks generated by the base clock generation part during the period from a first operation timing signal for deciding the operation timing at the first operating position to the clock signal generated by the clock generation part, wherein

a count value of the base clock count part is used for correcting a timing difference between the first operation timing signal and the clock signal generated by the clock generation part.

4. A timing control unit according to claim 1, further comprising:

a base clock generation part for generating a base clock signal at a period shorter than the clock generation part;

a base clock count part for counting a number of the base clocks generated by the base clock generation part during the period from a first operation timing signal for deciding the operation timing at the first operating position to the clock signal generated by

the clock generation part;

a memory part for storing the number of the base clocks counted by the base clock count part; and

a decrement count part for decrementing a value of the base clock stored in the memory part by the number of the base clocks generated by the base clock generation part, wherein

the count part starts to count the clock signal in accordance with a first operation timing signal for deciding the operation timing at the first operating position, and the base clock count part counts the number of the base clocks generated by the base clock generation part during the period between the first operation timing signal and the clock signal to thereby store the counted number of the base clocks in the memory part, and

the decrement count part starts to decrement the counted number of the base clocks stored in the memory part when the count part counts the clock signal for the number corresponding to the multiple of the perimeter of the drive roll, and delivers a second operation timing signal for deciding the operation timing at the second operating position when a count value of the decrement count part becomes zero.

5. A color image forming apparatus for forming a color image by successively forming toner images of different colors on a belt-like image bearing member at least at two image forming portions

including a first image forming portion and a second image forming portion separated in a circumferential direction of the belt-like image bearing member driven by a drive roll, a distance between the first image forming portion and the second image forming portion being set to a multiple of a perimeter of the drive roll, the color image forming apparatus comprising:

a clock generation part for generating a clock signal having a constant period in accordance with a rotation of the drive roll; and

a count part for counting the clock signal generated by the clock generation part, wherein

the count part counts the clock signal generated by the clock generation part for a number corresponding to the multiple of the perimeter of the drive roll, thereby an image formation timing at a second image forming position in the second image forming portion is synchronized with an image formation timing at a first image forming position in the first image forming portion.

6. A color image forming apparatus according to claim 5, wherein the count part starts to count the clock signal generated by the clock generation part when image formation at the first image forming position starts, and image formation at the second image forming position starts when the count part counts the clock signal for the number corresponding to the multiple of the perimeter of

the drive roll.

7. A color image forming apparatus according to claim 5, further comprising;

a base clock generation part for generating a base clock signal at a period shorter than the clock generation part; and

a base clock count part for counting a number of the base clocks generated by the base clock generation part during the period from a first image formation timing signal for deciding the image formation timing at the first image forming position to the clock signal generated by the clock generation part, wherein

a count value of the base clock count part is used for correcting a timing difference between the first image formation timing signal and the clock signal generated by the clock generation part.

8. A color image forming apparatus according to claim 5, further comprising;

a base clock generation part for generating a base clock signal at a period shorter than the clock generation part;

a base clock count part for counting a number of the base clocks generated by the base clock generation part during the period from a first image formation timing signal for deciding the image formation timing at the first image forming position to the clock signal generated by the clock generation part;

a memory part for storing the number of the base clocks counted by the base clock count part; and

a decrement count part for decrementing a value of the base clock stored in the memory part by the number of the base clocks generated by the base clock generation part, wherein

the count part starts to count the clock signal in accordance with the first image formation timing signal for deciding the image formation timing at the first image forming position, and the base clock count part counts the number of the base clocks generated by the base clock generation part during the period between the first image formation timing signal and the clock signal to thereby store the counted number of the base clocks in the memory part, and

the decrement count part starts to decrement the counted number of the base clocks stored in the memory part when the count part counts the clock signal for the number corresponding to the multiple of the perimeter of the drive roll, and delivers a second image formation timing signal for deciding the image formation timing at the second image forming position when a count value of the decrement count part becomes zero.